Cascade Biologics™

invitrogen cell culture



HKGS

Human Keratinocyte Growth Supplement

Cat. no. S-001-5 5 ml

Product Description

Human Keratinocyte Growth Supplement (HKGS) is a sterile, concentrated (100X) solution intended for use as one component in a complete culture environment for the growth of normal human epidermal keratinocytes. HKGS is an ionically-balanced supplement containing bovine pituitary extract (BPE), bovine insulin, hydrocortisone, bovine transferrin, and human epidermal growth factor. For investigators who wish to vary the concentration of one or more of these components in their cultures, HKGS Kit contains separate aliquots of BPE, bovine insulin, hydrocortisone, bovine transferrin, and human epidermal growth factor, as well as a vial of Gentamicin/ Amphotericin solution. Use of Gentamicin/Amphotericin is optional. HKGS Kit or 5 ml bottle of HKGS is the correct amount of supplement for a 500 ml bottle of EpiLife® basal medium or basal Medium 154. When a 500 ml bottle of medium is supplemented with HKGS or the components of the HKGS Kit, the final concentrations of the components in the supplemented medium are: BPE, 0.2% v/v; bovine insulin, 5 µg/ml; hydrocortisone, 0.18 µg/ml; bovine transferrin, 5 µg/ml; and human epidermal growth factor, 0.2 ng/ml.

Intended Use

HKGS is intended for use in conjunction with the aforementioned basal media for the routine serum-free culture of normal human epidermal keratinocytes. The HKGS Kit is designed for investigators who wish to vary the concentration of one or more of the components of HKGS in their cultures. Additional applications for both products may include primary isolation of keratinocytes from skin and clonal growth assays. For optimal results when performing primary isolations, HKGS should be used in conjunction with Coating Matrix Kit (Cat. no. R-011-K). This product is for research use only. Not for use in animals, humans, or diagnostic procedures.

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HKGS Kit

Human Keratinocyte Growth Supplement Kit

Cat. no. S-001-K

Caution: If handled improperly, some components of this product may present a health hazard. Take appropriate precautions when handling this product, including the wearing of protective clothing and eyewear. Dispose of properly.

Storage and Stability

HKGS and the HKGS Kit are stored at -20° C at our facility and are shipped on dry ice. Upon receipt, the product should be stored at -20° C in a freezer that is not self-defrosting. When stored at -20° C the product is stable until the expiration date shown on the label.

After long-term storage at -20° C, HKGS may contain a small amount of precipitate. This precipitate is formed from cold-insoluble material in the BPE component of the HKGS and will not affect the performance of the product. A similar precipitate may be seen in the BPE component of the HKGS Kit.

Thawing

To thaw, place the product in a 37° C water bath or overnight at 4° C. If thawed in a water bath, do not leave the product at 37° C after the product has thawed. For instructions on adding HKGS or HKGS Kit to the appropriate basal medium, refer to the instructions that accompany the basal medium.

Selected References

The HKGS formulation is based on published supplementation of medium MCDB 151 and MCDB 152 with modifications.

Peehl and Ham; In Vitro 16: 526-540, 1980 Tsao et al.; J. Cell. Physiol. 110: 219-229, 1982

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